REMARKS

This amendment is in response to the Office Action of September 8, 2004 in which claims 1, 3, 4, 6-10, 12, 14, 17-20, 22, 24, 27-37, 39-44 and 46-49 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent 6,162,220 to Nezhat ("Nezhat '220"); claims 47-49 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. 6,113,598 to Baker ("Baker '598"); and claims 1, 4, 13, 23, 29, 31, 38 and 45 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,273,887 to Yamauchi et al. ("Yamauchi '887"). Claims 1-26 were further rejected under the judicially created doctrine of obviousness type double patenting over U.S. Patent 6,517,536 in view of Nezhat '220.

Claims 1, 3, 4, 6-10, 12-14, 17-20, 22-24 and 27-49 are pending in the above application. Claims 1, 4, 29, 31 and 47 are the only independent claims with the remaining claims respectively dependent either directly or indirectly from one of these independent claims.

Independent claim 1 is generally directed to a device for clamping and ablating cardiac tissue. The device comprises first and second handle members, first and second jaw members and first and second elongated electrically conductive members. The jaw members each have an opposed clamping surface having a width. The first and second conductive members each have a tissue contacting portion having a width which is less than or equal to about 1/3 the width of its associated clamping surface of the jaw. The first and

second conductive members are adapted to be connected to an RF energy source to conduct electrical current through tissue which is clamped between the jaw members. The electrical current for ablation is conducted solely by the electrically conductive members. Claim 1 further requires that the respective first and second jaw members are adapted to contact cardiac tissue without penetrating such tissue along the clamping surfaces.

Independent claim 4 is generally directed to a tissue grasping apparatus having first and second grasping jaws. Each jaw has a width and includes an elongated electrically conductive member and a clamping surface in face to face relationship with the electrically conductive member and clamping surface of the other jaw. The face to face electrically conductive members are connectable to an RF energy power source for providing an electrical current through tissue which is clamped between the jaws and electrical current for ablation is conducted solely by the electrically conductive members. The electrically conductive members have a tissue contacting portion having a width which is less than or equal to about 1/3 the width of its associated jaw. Claim 4 also includes that the respective first and second grasping jaws are adapted to contact cardiac tissue without penetrating such tissue along the clamping surfaces.

Independent claims 29 and 31 include similar subject matter of claims 1 and 4, respectively, except these claims recite that the width of tissue contacting portion is less than the width

of its associated clamping surface. Claims 29 and 31 further include the feature that the tissue contacting portion of the electrically conductive members is disposed with a portion of the respective clamping surface on each side of the respective conductive member.

Independent claim 47 is generally directed to a tissue grasping apparatus having first and second grasping jaws which include first and second electrically conductive members, respectively, the electrically conductive members are in a face to face relation with each other and are connectable to an RF energy power source for providing electrical current through the tissue clamp between the jaws. The electrical current for ablation is conducted solely by the electrically conductive members. At least one of the electrically conductive members defines an interior lumen. Claim 47 further requires that the electrically conductive members are disposed to contact tissue.

It is respectfully submitted that the currently pending claims in this application should be allowed over Nezhat '220, Baker '598 and Yamauchi '887 because these references do not teach or support the claimed reference.

The Office Action relies upon the structure shown in Figure 2E of Nezhat '220 to reject claim 1. It must be emphasized that all the structures shown in Nezhat '220, including the structure shown in Figure 2E, share an important feature. Nezhat '220 uniformly teaches that "[a]t least one of the electrode

members will include tissue-penetrating elements" (Column 2, lines 42-43). Nezhat '220 thus teaches that each of its electrodes must have a "tissue-penetrating element" and the only difference between the "tissue-penetrating elements" is in their shape or configuration (column 3, lines 35-55). Nezhat '220 discloses that the most common shape of such tissue-penetrating element "will be in the form of a pin or other rod-like tissue-penetrating electrode, usually having a sharpened distal end to facilitate penetration into tissue. Alternatively, an appropriate cutting current could be applied to the electrodes in order to facilitate tissue penetration while the jaws are closed." (Column 3, lines 36-42).

Consequently, it is respectfully submitted that when Nezhat's disclosure is read in its entirety, his disclosure clearly teaches that the structures in Figures 2A-2E are merely different shapes of "tissue-penetrating" elements or electrodes. Based on Nezhat's teachings, Figures 2A, 2B and 2E show flat electrodes which are no different from the pin-shaped electrodes in Figures 2C, 2D and 2F except in terms of their shape. Therefore, with respect to the structures disclosed in Figures 2A-2F, the disclosure of Nezhat '220 consistently teaches that any electrode which is disposed on the jaws necessarily must be a "tissue-penetrating electrodes" either by mechanically penetrating the tissue or by penetrating the tissue by way of a cutting current applied to the electrodes.

Consequently, Nezhat '220 does not disclose that the respective tissue contacting portions of its electrode members are disposed to contact tissue without penetrating such tissue, in contrast to the apparatus of claim 1. Nezhat '220 further fails to teach such a feature with respect to contacting cardiac tissue, as in claim 1. In fact, Nezhat's disclosure is silent that the disclosed surgical instrument is suitable for contacting cardiac tissue under any circumstances whatsoever.

In addition, Nezhat '220 discloses that electrodes in Figures 2A-2F are limited to a specific structure which is different from the subject matter of claim 1. The disclosure of Nezhat '220 provides ranges for dimensions and spacing of the electrodes such that the electrodes are positioned intermittently or spaced from one another along the jaw (column 3, lines 42-47). The individual electrodes in Nezhat '220 must spaced from one another along the jaw in the range from 0.2mm to 5mm, in addition to other dimensions (column 3, lines 42-55). The flat and pin-shaped electrodes in each of Figures 2A-2F are also constrained by these limitations.

Nezhat's disclosure expressly states that "[t]he electrode members 202 and 204 in Fig. 2A are generally linear electrodes having a width and length within the ranges set forth above" (column 6, lines 43-46). There are no other ranges "set forth above" except the ranges set forth in column 3, lines 42-55. As a result, the electrodes in Figure 2A, and likewise the other

electrodes in Figures 2B-2F, are expressly constrained by those same ranges, and thereby, disclose intermittent or spaced electrodes along the jaw, in contrast to claim 1.

If reference is made to the flat-shaped electrically conductive strips 24 and 34 in Figures 3A-3C, it must be emphasized that Figures 3A-3C discloses a different structure which requires that a line of tissue-penetrating pins 22 and 32 be disposed on each of the strips 24 and 34. Such electrode strips are only disclosed with a structure which requires the line of tissue-penetrating pins. Such tissue-penetrating pins, which are similar to the electrodes shown in Figures 2A-2F, are clearly constrained by the same ranges identified above (column 7, lines 63-65). Thus, Nezhat '220 teaches that the electrode strips, if used at all, must be used in combination with the pin-shaped tissue-penetrating electrodes.

Similar restrictions apply if reference is made to the structures shown in Figures 9A-9F. For example, Figure 9A shows a line of reciprocating pin-shaped tissue-penetrating elements 104 in combination with a pair of elongated non-penetrating electrodes 100 and 102 disposed on opposite sides of the line of reciprocating tissue-penetrating elements 104. Nezhat '220 clearly discloses that the non-penetrating electrodes 100 and 102 should never be provided on the jaws by themselves where he states that: "[a]t a minimum, there will be at least one line of tissue-penetrating elements and one other electrode structure, either tissue

penetrating or tissue non-penetrating." Thus, in Nezhat '220, teaches away from a jaw structure which has an elongated non-penetrating electrode by itself.

For these reasons, amended claim 1 and its dependent claims are believed allowable over the cited reference to Nezhat '220. Similarly, amended claims 4, 29 and 31 and their respective dependent claims which were also rejected on the basis of Nezhat '220 are believed allowable for the same reasons as recited above with respect to amended claim 1.

Independent claims 1, 4, 29 and 31 were further rejected on the basis of the Yamauchi '887 reference. Claim 1 is also respectfully believed to be distinguishable over the cited reference to Yamauchi '887.

In the Office Action, Figures 74A and 74B of Yamauchi '887 are specifically relied upon as the basis for rejection of the claims. In Figures 74A and 74B, incision projections 549a and 549b are projecting portions of the jaws 548a and 548b, respectively. These jaws 548a and 548b do not teach or suggest the features of claim 1. The incision projections 549a and 549b project perpendicularly from each opposing surface of the associated jaw and penetrate any tissue which is grasped between the jaws. The incision projections 549a and 549b comprise their own facing surfaces 551 which are shaped to a point for penetrating tissue, in contrast to claim 1. For this reason, claim 1 should be allowable over Yamauchi '887.

Independent claims 4, 29 and 31 are also respectfully believed to be allowable over Yamauchi '887 for the same reasons as stated above. Each of the remaining claims 3, 6-10, 12-14, 17-20, 22-24, 27-28, 30 and 32-49 is dependent either directly or indirectly from one of claims 1, 4, 29, and 31, and is thus also believed to be allowable.

Turning now to the rejection of independent claim 47 based on Baker '598, the Office Action particularly relies upon the structure shown in Figures 11-14C which discloses a resiliently deformable jaw element, for example deformable jaw element 132 in Figures 11-12C, which is shown in the drawings as having a hollow interior. The jaw element 132 in Baker '598 fails to teach or suggest an electrically conductive member which defines an interior lumen, as recited in claim 1. Rather, Baker's deformable jaw element 132 is described as comprising any suitable elastometric material, such as rubber, and is designed to flatten, as shown in Figures 12A-12C as the jaws close together. The deformable jaw element 132 clearly is not an electrically conductive member. In fact, Baker '598 discloses that a separate structure of a thin conducting film electrode 155 may be placed over a surface of the deformable jaw element 132 in opposition to the other jaw surface 136. Therefore, for this reason, it is respectfully believed that Baker '598 does not teach or suggest the subject matter of claim 47 or its respective dependent claims.

Thus, it is respectfully submitted that the claimed subject matter is not anticipated or obvious in view of the cited patents. It is accordingly requested that the Office Action be reconsidered, and the claims, as amended, be allowed.

Respectfully submitted,

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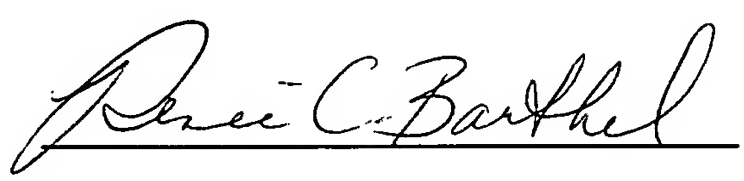

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